



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

**OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES**

ORIGINAL SIGNED 11-26-04

Memorandum

From: Michael Patterson, Ph.D.
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
Environmental Field Branch
Field and External Affairs Division

Subject: Effects Determination for Bromoxynil for Certain Pacific Anadromous Salmonids

I reviewed data and other information for bromoxynil, a registered herbicide named by the Washington Toxics Coalition (WTC) and included in the court order for 'effects determinations' and potential consultation with the National Marine Fisheries Service. Bromoxynil is registered nationally for use on a wide variety of agricultural crops; commercial turf and ornamental operations. It is a restricted use chemical, not approved for residential use. The Environmental Fate and Effects Division (EFED) has completed an environmental risk assessment for a "Reregistration Eligibility Decision (RED) bromoxynil" issued in December, 1998. The assessment concludes that levels of concern are exceeded for endangered freshwater fish and aquatic invertebrates exposed to runoff and drift from agricultural and turf treatment sites.

I have adapted the more general findings of the EFED assessment to develop an analysis of the potential for effects on endangered and threatened Pacific salmon and steelhead Evolutionary Significant Units (ESUs) from current uses in California and the Pacific Northwest. My analysis addresses changes in uses and rates that have been put on most labels since the RED was developed. OPP's levels of concern are exceeded for direct acute risks and chronic risks from some uses to endangered fish. Some uses also exceed criteria for populations of aquatic invertebrates that may be food for fish. There are a number of mitigating factors that reduce many, but not all concerns.

Based upon the available information, I determined that some use of bromoxynil on crops

and certain non-crop sites may affect 11 ESUs under labeled application directions, may affect but are not likely to adversely affect 11 ESUs, and will have no effect on 4 ESUs.

attachment:

Bromoxynil: Analysis of Risks to Endangered and Threatened Salmon and Steelhead
(with attachments)